

CLAIMS

Sub B1  
102 5 1. A wound dressing comprising a carrier layer having a wound-facing surface, said surface being non-adherent to anchorage-dependent cells and having disposed thereon a biodegradable cell anchoring layer.

Sub C2  
10 2. The wound dressing of claim 1 wherein the carrier layer comprises a polymeric material.

103 3. The wound dressing of claim 2 wherein the material is a cross-linked hydroxyalkyl cellulose, a cross-linked carboxyalkyl cellulose, a polyvinyl alcohol or an agarose.

15 4. The wound dressing of claim 1 wherein the carrier layer comprises a material adherent to anchorage dependent cells and treated on the wound facing surface thereof to be non-adherent to cells.

20 5. The wound dressing of claim 4 wherein the adherent material comprises a polymer selected from a group consisting of; polyhydroxyethylmethacrylic acids, cross-linked polyvinylalcohols, polyacrylic acids cross-linked with trialkylsucrose, polyvinylpyrrolidones, polyetherpolyesters, polyetherpolyamides, 25 polycrylamides, polyethylene oxide, polyurethanes and ethylene-vinyl acetate copolymers.

Sub C3  
30 a 6. The wound dressing of claim 4 or 5 wherein the wound facing surface is treated with a phosphocholine, a silicone, a polyethylene glycol or a polytetrafluoroethylene.

a 7. A wound dressing according to any one preceding claim wherein the biodegradable cell anchoring layer comprises a polyanion moiety.

35 8. The wound dressing of claim 7 wherein the polyanion moiety has anchored thereto a cell adhesion protein.

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9. Th wound dressing of claim ~~7 or 8~~ wherein the polyanion is a heparin, an inositol phosphate, fucoidin, syndecan, betaglycan, perlecan, dextran sulphate, pentosan, mesoglycan or polyvinyl sulphate.

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10. The wound dressing of <sup>claim 1</sup> ~~any of claims 1 to 6~~ wherein the biodegradable cell anchoring layer comprises a polypeptide.

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11. The wound dressing of claim 10 wherein the polypeptide is polylysine.

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12. The wound dressing of <sup>claim 1</sup> ~~any preceding claim~~ wherein the cell anchoring layer has anchored thereto mammalian cells which form a cell layer.

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13. The wound dressing of claim 12 wherein the cell layer comprises either keratinocytes or fibroblasts

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14. The wound dressing of claim 12 wherein the cell layer comprises both keratinocytes and fibroblasts.

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15. The wound dressing of <sup>claim 12</sup> ~~claims 12 to 14~~ wherein the cell layer comprises either autologous cells or allogenic cells.

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16. The wound dressing of <sup>claim 12</sup> ~~claims 12 to 14~~ wherein the cell layer comprises both autologous and allogenic cells.

17. A cell culture system comprising;

- (a) a wound dressing comprising a carrier layer having a wound-facing surface, said surface being non-adherent to anchorage dependent cells and having disposed thereon a biodegradable cell anchoring layer and

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- (b) a vessel having interior and exterior surfaces for containing a liquid culture medium for culturing cells and the dressing.

5 18. A method of treating a skin trauma site on a mammalian patient comprising the step of applying to a patient a wound dressing which dressing comprises;

10 (a) a carrier layer comprising a wound surface which is non-adherent to anchorage dependent cells and having disposed thereon a biodegradable cell anchoring layer;

15 (b) a layer of mammalian cells anchored to the anchoring layer.

19. A method of preparing a wound dressing comprising the steps of;

20 (a) obtaining a surface which is non-adherent to anchorage dependent cells on a wound facing surface of a carrier layer;

(b) forming a biodegradable cell anchoring layer on a non-adherent to anchorage dependent cells surface of a carrier layer;

25 (c) culturing a carrier layer which comprises a non-adherent to anchorage dependent cell surface and biodegradable cell anchoring layer in the presence of mammalian cells.